UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION RENTON, WASHINGTON 98055-4056

In the matter of the petition of

Dornier Luftfahrt GmbH

Regulatory Docket No. 27157

for an exemption from § 25.562(b)(2) of the Federal Aviation Regulations

GRANT OF EXEMPTION

By letter LREZ-785/94 dated September 9, 1994, Messrs. I.V. Goße and I.A. Krause, Dornier Luftfahrt GmbH, D-88039 Friedrichshafen, Federal Republic of Germany, petitioned for a time extension to Exemption No. 5704A, from the floor distortion test requirements of § 25.562(b)(2) of the Federal Aviation Regulations (FAR), for captain's and first officer's seats in Dornier Model 328 airplanes, which expires on December 31, 1994.

Sections of the FAR affected:

Section 25.562(b)(2), as amended by Amendment 25-64, in prescribing the conditions under which seats must be tested, requires in pertinent part that where floor rails or floor fittings are used to attach the seating devices to the test fixture, the rails or fittings must be misaligned with respect to the adjacent set of rails or fittings by at least ten degrees vertically (i.e., out of parallel) with one rolled ten degrees.

.The petitioner's supportive information is as follows:

In view of unsuccessful certification testing, Dornier and IPECO conducted a review of activities remaining to meet the existing December 31, 1994, deadline. The following tasks still remain:

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- (i) Repetition of certification tests.
- (ii) Writing of a test report.
- (iii) Approval of test report.
- (iv) Manufacture of modification kits.
- (v) Modification/Retrofit of existing seats, in-house and in service.

Pilot seat part numbers 3A165-0007-01-1 and 3A165-0008-01-1 again need to be modified with respect to their ability to withstand floor deformation. Dynamic testing with the modified seat is expected to occur between September 19 and September 21, 1994. We are confident that the modified mechanism now designed for that seat will perform satisfactorily.

- 1. Granting the extension until June 30, 1995, would be in the public interest because the safety standard of the seats concerned is equivalent to nearly all existing airplanes in service.
- 2. Granting an extension of the temporary exemption will not impede ongoing development of a technically and economically viable solution.
- 3. Dornier is working together with the seat supplier to develop an improved seat backrest design to achieve the required dynamic seat characteristics under floor deformation conditions.
- 4. With termination of certification testing, new seats will be incorporated into new Dornier 328 production and will be retrofitted in previously delivered aircraft.

We believe these remaining tasks can be achieved within the new deadline proposed for June 30, 1995.

A summary of the petition was published in the <u>Federal Register</u> on October 18, 1994 (59 FR 52580). No comments were received.

The FAA's analysis/summary is as follows:

Exemption No. 5704 was issued on July 30, 1993, in response to the petitioner's failure to observe the floor distortion test requirements defined by the certification basis for the Dornier Model 328 airplane, and in recognition of some confusion at that time regarding the FAA's intended application of those requirements. That exemption allowed the petitioner until June 30, 1994, to develop and retrofit seats complying with the noted requirement. As that deadline neared, and expressing confidence that successful testing was imminent, Dornier then petitioned for a time extension to that exemption. Accordingly, Exemption No. 5704A was issued on June 22, 1994, that granted a time

extension until the requested date of December 31, 1994, for the completion of required activities. The current petition requests an additional time extension, until June 30, 1995, due to the unexpected failure of various designs to perform successfully during qualification testing, and in anticipation of successful testing that was scheduled to be accomplished between September 19 and 21, 1994.

Although the design that was tested, on September 21, 1994, actually failed, the FAA has subsequently learned through a telephone conversation with a Dornier representative on December 1, 1994, and preliminary reports received by the FAA, that a redesigned seat passed the floor distortion test requirements during tests accomplished during the period November 7 to 9, 1994. The petitioner's requested time extension until June 30, 1995, however, remains what may be considered to be a realistic deadline for the manufacture and retrofit of the compliant seats.

In consideration of the foregoing, I find that a grant of exemption is in the public interest, and will not significantly affect the level of safety provided by the regulations. Therefore, pursuant to the authority contained in §§ 313(a) and 601(c) of the Federal Aviation Act of 1958, delegated to me by the Administrator (14 CFR 11.53), the petition of Dornier Luftfahrt for exemption from the floor distortion test requirements of § 25.562(b)(2) of the FAR, for captain's and first officer's seats on Dornier Model 328 airplanes, is granted through June 30, 1995. Other provisions of Exemption No. 5704, together with its conditions and limitations, remain the same and are applicable to this exemption. This amendment is part of, and shall remain attached to, Exemption No. 5704.

Issued in Renton, Washington, on	
	Transport Airplane Directorate Aircraft Certification Service